

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
89TH REGIONAL READINESS COMMAND MEAD LOCAL  
TRAINING AREA  
MEAD, NEBRASKA**

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Prepared for:

**UNITED STATES ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT**  
P.O. Box 1715  
Baltimore, Maryland 21203

and

**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
Aberdeen Proving Ground, Maryland 21010

Prepared by:

**MALCOLM PIRNIE, INC.**  
701 Town Center Drive  
Suite 600  
Newport News, Virginia 23606



## EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense policy and to support the U.S. Army Sustainable Range Program. The operational range qualitative assessment (hereinafter referred to as Phase I Assessment) is the first phase of the U.S. Army Operational Range Assessment Program. This Phase I Assessment evaluates the operational range area at the 89th Regional Readiness Command (RRC) Mead Local Training Area (LTA) to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. In conducting the Phase I Assessment, MCOC sources, potential off-range migration pathways, and potential off-range human and ecological receptors are evaluated as appropriate.

The 89th RRC Mead LTA is located within the prairie grasslands west of the Platte River in eastern Nebraska and consists of 955.4 acres. The installation is located 16 miles south of Fremont, 20 miles west of Omaha, and 25 miles northeast of Lincoln, Nebraska. The 89th RRC Mead LTA consists of the southern half of Section 28 and all of Section 33 in Township 14 North and Range 9 East in Saunders County. Military activities on the 89th RRC Mead LTA are limited to unit operations and field training exercises. Most training consists of individual development and land navigation training, equipment familiarization, and unit exercises using blank ammunition and smoke. Live ammunition use is prohibited on the LTA (U.S. Army Reserve, 2003).

Historically, the land that comprises the 89th RRC Mead LTA was part of the Former Nebraska Ordnance Plant (FNOP), which was constructed in 1942. The FNOP is a formerly-owned DOD facility, and investigation and remediation of the FNOP related environmental issues are addressed under the Formerly Used Defense Sites (FUDS) program, which is managed by the Army Corps of Engineers (USACE). Environmental restoration is ongoing at FNOP to remediate and monitor MCOC originating from FNOP activities. The MCOC originating from the activities at FNOP include Cyclotrimethylenetrinitramine (RDX); Trinitrotoluene (TNT); 2,4-dinitrotoluene (DNT); 2,6-DNT; 1,3,5-trinitrobenzene; Cyclotetramethylenetetranitramine (HMX); and 2,4,6-tetranitro-n-methylaniline (USEPA, 1995 and USEPA, 1996). The explosives in soils have already been remediated, and the explosives in the groundwater are currently being remediated. Specifically, RDX originating from FNOP activities that has migrated into groundwater on the 89th RRC Mead LTA property is being remediated with a groundwater pump and treat system. The pump and treat is located on a 1.7-acre parcel at the extreme southeast corner of the installation (DA, 2003).

The operational range at the 89th RRC Mead LTA is categorized as Unlikely.

### **Unlikely – Five-Year Review**

One range at the 89th RRC Mead LTA is categorized as Unlikely, totaling 955.4 acres. This range is a training and maneuver range. Ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions off-range that could present an unacceptable risk to human health or the environment are categorized as Unlikely. Ranges categorized as Unlikely are required to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., change in range operations or site conditions, regulatory changes) occur that affect determinations made during this Phase I Assessment.

**Table ES-1** summarizes the Phase I Assessment findings.

**Table ES-1: Summary of Findings and Conclusions for the 89th RRC Mead LTA**

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale	
Unlikely	One operational range; 955.4 acres	No source-limited military munitions use (pyrotechnics, simulators, and blank small arms)				Not evaluated (no source was identified)	Re-evaluate during the five-year review. No source was identified.

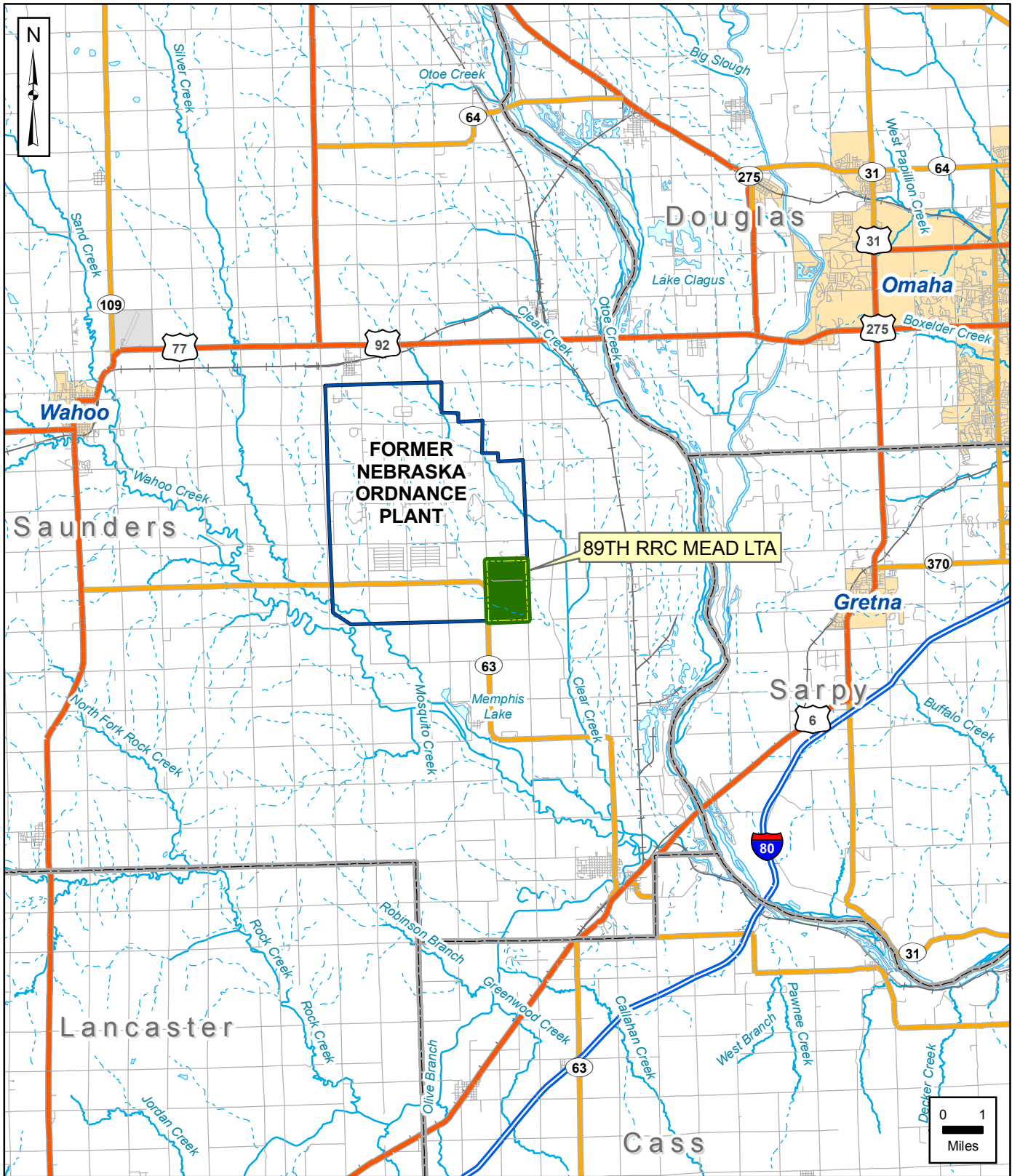
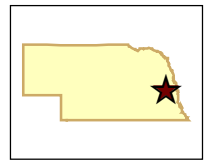
## ABBREVIATIONS/ACRONYMS

ARDC	Agricultural Research and Development Center
ARID-GEO	Army Range Inventory Database-Geodatabase
bgs	Below Ground Surface
CSM	Conceptual Site Model
DNT	Dinitrotoluene
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
FNOP	Former Nebraska Ordnance Plant
FUDS	Formerly Used Defense Sites
gpm	Gallons per Minute
GW	Groundwater pathway identified. (This refers to range grouping; M designation always precedes GW designation.)
H	Human receptors identified. (This refers to range grouping; pathway designation always precedes H designation.)
HMX	Cyclotetramethylenetetranitramine
HPRCC	High Plains Regional Climate Center
LS	Limited Source
LTA	Local Training Area
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCOC	Munitions Constituents of Concern
mgd	Million Gallons per Day
mm	Millimeters
ORAP	Operational Range Assessment Program
OU	Operable Unit
ppb	Parts per Billion
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
RDX	Cyclotrimethylenetrinitramine
RFMSS	Range Facility Management Support System
RRC	Regional Readiness Command
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
TNT	Trinitrotoluene
U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USARTC	United States Army Reserve Training Center
USEPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit



**MALCOLM  
PIRNIÉ**

**Operational Range Assessment Program  
Phase I Qualitative Assessment  
89th RRC Mead LTA, NE  
Figure 1-1  
General 89th RRC Mead LTA Location**



**Installation**

- Installation Boundary
- Operational Area

**Hydrology**

- River/Stream (Perennial)
- Stream (Intermittent)
- Water Body

**Transportation**

- Interstate
- Highway
- Major Road
- Local Road
- Railroad

**Administrative**

- County Boundary
- Urbanized Area
- Airport

Data Sources:  
USAEC, ARID-GEO, 2007  
ESRI, StreetMap USA, 2005

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Prepared By: ..... Malcolm Pirnie, Inc.  
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